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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Examiner: not yet known
Alejandro M. Grignetti

Serial No.: 09/818,415 Art Unit: not yet known

Filed: March 27, 2001

Title: Browser System and Method

Commissioner of Patents
Washington, DC 20231

PRELIMINARY AMENDMENT
(AMENDMENT A)

Sir:

Prior to the examination of the above-identified patent application, please amend the application as follows:

In the drawings:

In Figure 1, replace the numeral "123" under the text "stylus" with the numeral --126--.

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In the specification:

Please replace the paragraph beginning at page 1, line 18, with the following rewritten paragraph:

--Current devices for reading digital content include WebPAD style devices, electronic books, set top boxes, WEB enabled cell phones, Personal Digital Assistants (PDAs),

palmtops, and laptop and desktop PC (Personal Computing) devices. WebPAD style devices are typically tethered to a base station via radio frequency (RF), have limited or no data storage capability (usually less than approximately 64 Megabytes (MB)), use proprietary operating systems (e.g., QNX, VxWorks, WinCE), and have limited battery life (typically less than approximately 3 hours). Additionally, WebPAD style devices are not 100% Internet compliant, since these devices typically offer no support for the following: (1) Macromedia ShockWave or Flash, (2) Multi-media support (QuickTime, .AVI, Real Audio/Video, and the like), and (3) JAVA, JavaScript, and Virtual Reality Modeling Language (VRML) and other "Plug-ins". As known to those skilled in the art, a plug-in is a helper application used by browsers to facilitate the viewing of certain file types, or content. WebPAD style devices also have limited or no viewers for .pdf, .doc, .xls, .ppt, type files, and the like.--

Please replace the paragraph beginning at page 3, line 7 with the following rewritten paragraph:

--Palmtop devices are generally not X86 processor based (the Intel 80x86 range, or compatibles from, e.g., Cyrix or Advanced Micro Devices), making them incompatible with existing plug-ins for viewing Internet content. Furthermore,

palmtop devices generally use the proprietary operating system, WinCE, which has poor World Wide Web (WEB) browser support. As known to those skilled in the art, a browser is an application program that provides a method to look at and interact with information contained on the WEB. The WEB browser is typically a client program that uses Hypertext Transfer Protocol (HTTP) that enables the browser user to make requests to WEB servers connected to the Internet. Two conventional WEB browsers that are widely used today are the Netscape Navigator and the Microsoft Internet Explorer.--

Please replace the paragraph beginning at page 10, line 13 with the following rewritten paragraph:

--As an example, the screen 115 comprises a liquid crystal display (LCD) panel 115a (Figure 4) with a screen size of approximately 10.4 inches and a screen resolution of 1024 by 768. Other screen sizes and resolution values may also be used for the screen 115. The display technology may also vary for screen 115. For example, thin film transistor (TFT) LCDs (i.e., active matrix displays) or super twisted nematic (STN, or passive matrix) displays may be used as the display technology for screen 115. Bi-stable LCD displays, such as electronic ink (Eink), which have less power requirements, may also be used for the display technology

for screen 115, as could Organic Light Emitting Diodes (OLEDs), or Light Emitting Polymers (LEPs).--

Please replace the paragraph beginning at page 11, line 1, with the following rewritten paragraph:

--In one embodiment, the screen 115 includes a four or five wire resistive touchscreen 115b (Figure 4). A power button 125 is used for turning the peripheral browser device 100 on or off. A multifunction joystick 135 is used for accessing a menu which allows access to all functionalities in the peripheral browser device 100, as well as permitting the user to perform scrolling functions (scrolling up, down, left, and right functions) on screen 115. The joystick 135 can be in any suitable compact configuration that permits ease of use for the user. A stylus 126 permits fine touch access to screen contents too small for finger selection. A DC input jack 127 provides connection to a DC power source (not shown) for recharging a battery in the browser device 100 and permits transmission of power into the browser device 100 when battery power is low. The device 100 also includes a cover 128 to protect the LCD panel/touch screen during storage, and also has a switch (cover sensor 129) to turn the browser device 100 off when the cover 128 is closed (i.e., when the cover 128 is inserted into the cover latch).

Other features that may be included in the browser device 100 includes, for example, a speaker 121, microphone 122, stylus storage area 123, and/or earphone jack 124.--

Please replace the paragraph beginning at page 26, line 18, with the following rewritten paragraph:

--Inevitably, however, the auto download utility will download content that was not required, or it will not download critical content, since it is impossible for a remote program to understand the content. This is due to the fact that a simple depth variable is insufficient to understand the format of every article written. For example, some publishers may wish to get as much advertising into an article as possible, so a 10 page article may be divided into 20 linked pages, each with a different advertisement. Other publishers, if they are subscription rather than advertising based, may place the article on a single long web page, to facilitate reading. A simple program cannot take the two scenarios into account; therefore the concept of content bundles is introduced. Content bundles are to the web, what books, newspapers and magazines are to paper: groups of like content bound together in one package. Content bundles are groups of self-referencing web pages that are put together by the publisher of that content, and

then compressed for ease of delivery. The content bundles solve the problem of incomplete or extra content created by the automatic download utility 137. The content bundle represents a complete image of a magazine, or newspaper of even a web-based catalog (or any web based content), all wrapped up neatly into an easy to deliver bundle. Content bundles can also be downloaded by the automatic download utility 137; they simply do not require any depth control (a content bundle is one link deep).--

Please replace the paragraph beginning at page 31, line 9, with the following rewritten paragraph:

--In one embodiment, the precious attribute is utilized in conjunction with the automatic disk reuse program 141. This is simply a garbage collection type disk cache cleanup that uses a Least Recently Used (LRU) algorithm to determine when blocks of non-volatile storage 120 are to be deleted for use by new content. The LRU scheme works in conjunction with the content pointer database 140 to identify content that is "stale", or has not been accessed in a user determined amount of time, and that does not have a precious attribute. Content that is, for example, more than one month old (this time period is user selectable for each content type), may be selected for automatic deletion. This

will make room for the storage of newer content. Contents are deleted from the content pointer database start point, and down the link tree from there. The link traversal during deletion is facilitated by the link tree created during the initial content write to non-volatile storage. The link tree allows the cleanup utility (LRU) to simply delete a series of files that are known to be part of a particular initial start point, or content type. This reduces or eliminates the possibility of Dead Links left in non-volatile storage. Dead links are pages of WEB content that have no method of being accessed by either a WEB page link, or a content pointer database link. The LRU scheme is made easier with Content Bundles, in that large areas of storage are freed with a single file deletion. Each content type can have different default staleness times, so, for example, a newspaper entry may be stale after three or four days, while a magazine may not become stale for four months. These staleness attributes are also stored in the content pointer database, and are user changeable.--

In the Claims:

Please add the following new claims 16 through 64.